

The Impact of **Demographic Change** *in a changing environment*





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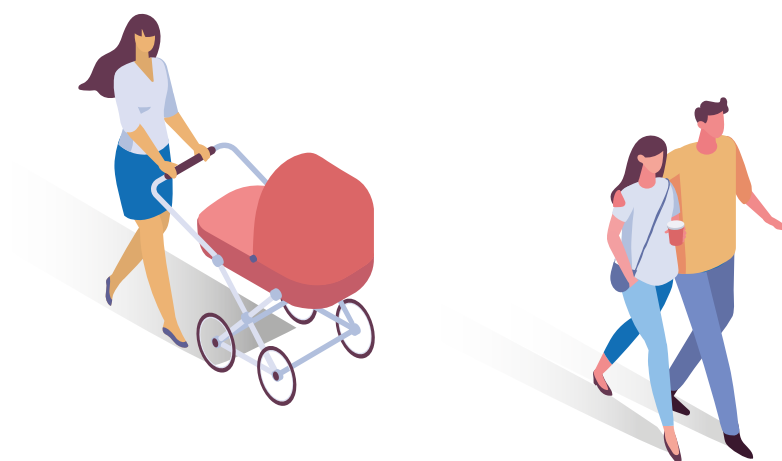
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1

Introduction

Demography tells the story of our lives. It is about how old we are likely to become, how many children we can expect to have, and where and how we are likely to spend our lives. Demographic change also has a powerful impact on our economies, on our welfare and health systems as well as on housing and infrastructure needs in the European regions. This in turn has implications for government budgets. Understanding the causes of demographic transitions allows us to better manage their consequences and prepare for the future.

Across Europe, over the last 50 years, life expectancy has increased considerably. As people live longer and healthier lives, many citizens want to work longer, although not necessarily in the same kind of jobs. At the same time, there is a continued trend of fewer children being born. Even though Europe has higher rates of immigration than emigration, the gradual decline of the EU's population and labour force is expected to continue.

A decreasing and ageing population brings new challenges. The shrinking working-age population puts pressure on labour markets and welfare states; increases the old-age dependency ratio; and raises the per-capita burden of public debt. To sustain economic growth, the working-age population must increase, labour-force participation rates must go up and/or productivity has to increase through technological advances and/or skills development. Population ageing also entails additional needs, including the need to adapt our workplaces, welfare and public health systems to accommodate the increased demand for accessible and affordable quality health care and long-term care.

The COVID-19 pandemic has demonstrated the vulnerability of our economies to health-related shocks. It also had a visible but probably mostly transitory impact on established demographic trends. Other phenomena may have more lasting impacts. Migration can both exacerbate and help address the problem of a shrinking working-age population. Over a more long-term perspective, climate change and environmental degradation may contribute to a reduction in life expectancy and displacements within and across national borders.

The demographic transition also brings benefits. The fact that people nowadays live longer and healthier lives than previous generations is a remarkable societal achievement in itself. As our labour markets adapt to the new reality, it also brings more opportunities for active ageing and continued personal development. Meanwhile, more women are participating in the labour market, although significant gender gaps persist.

Demographic trends do not affect every country and every region in the same way. Although the European population is ageing as a whole, demographic developments are far from uniform, with considerable variations both between and within individual EU Member States. Population decline has been particularly acute in some Eastern EU Member States, which have experienced high levels of emigration as well as people moving within their home countries from rural regions to predominantly urban areas in search of better opportunities for work and education and training possibilities. The resulting demographic differences can exacerbate existing economic, social and territorial inequalities, and provoke political divides.

This report presents the drivers of demographic change and their impact across Europe, updating and developing the Demography Report issued in 2020. It discusses both firmly established long-term trends and more recent developments caused by sudden crises.



2

What drives demographic change in Europe?

Although demographic trends typically develop over longer periods, sudden events such as Brexit, the COVID-19 pandemic, and the Russian war of aggression against Ukraine can accelerate or disrupt established patterns. In some cases, such disruptions are transitory, whereas in other cases they can have a lasting impact on demographic change.

European demographics are characterised by several long-term trends. Life expectancy at birth has increased steadily for several decades (see Graph 1). The average number of live births per woman decreased from the 1960s until the mid-1990s, recovered slightly in the 2000s, and then stabilised in the following decade ⁽¹⁾. In the last 35 years, Europe has been a continent of positive net migration, with more people moving to the EU than leaving it.

COVID-19 caused a sudden, temporary decline in life expectancy in the EU. The pandemic was responsible for 1.2 million additional deaths in 2020–2021 ⁽²⁾. As a result, life expectancy at birth dropped from 81.3 years in 2019 to 80.1 years in 2021. The decline was steeper for men than women.

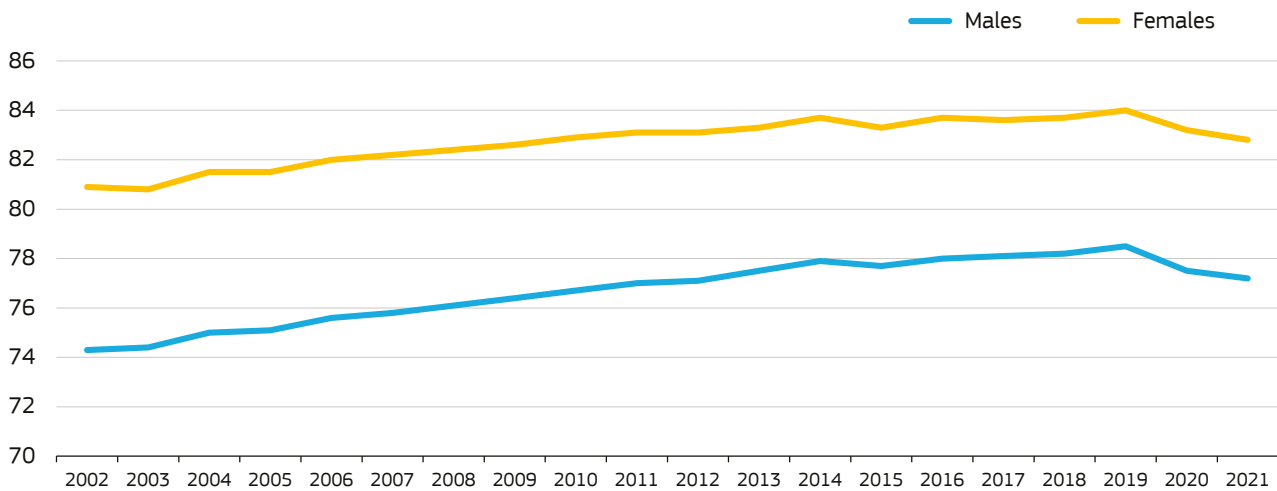
Although excess mortality was observed during most of the period across Europe, the peaks and intensity of outbreaks varied greatly across countries. Italy was the first country to reach a peak in excess mortality in March 2020, followed by Spain, Belgium, Luxembourg, the Netherlands and Sweden in March and April. Countries in Central and Eastern Europe experienced higher rates

of mortality during the autumn months of 2020 and in spring 2021. According to the latest available data, excess mortality continues to vary across the EU. In October 2022, Bulgaria and Romania recorded little or no excess deaths, while the most affected country, Germany, recorded an excess mortality rate of 23.0%.

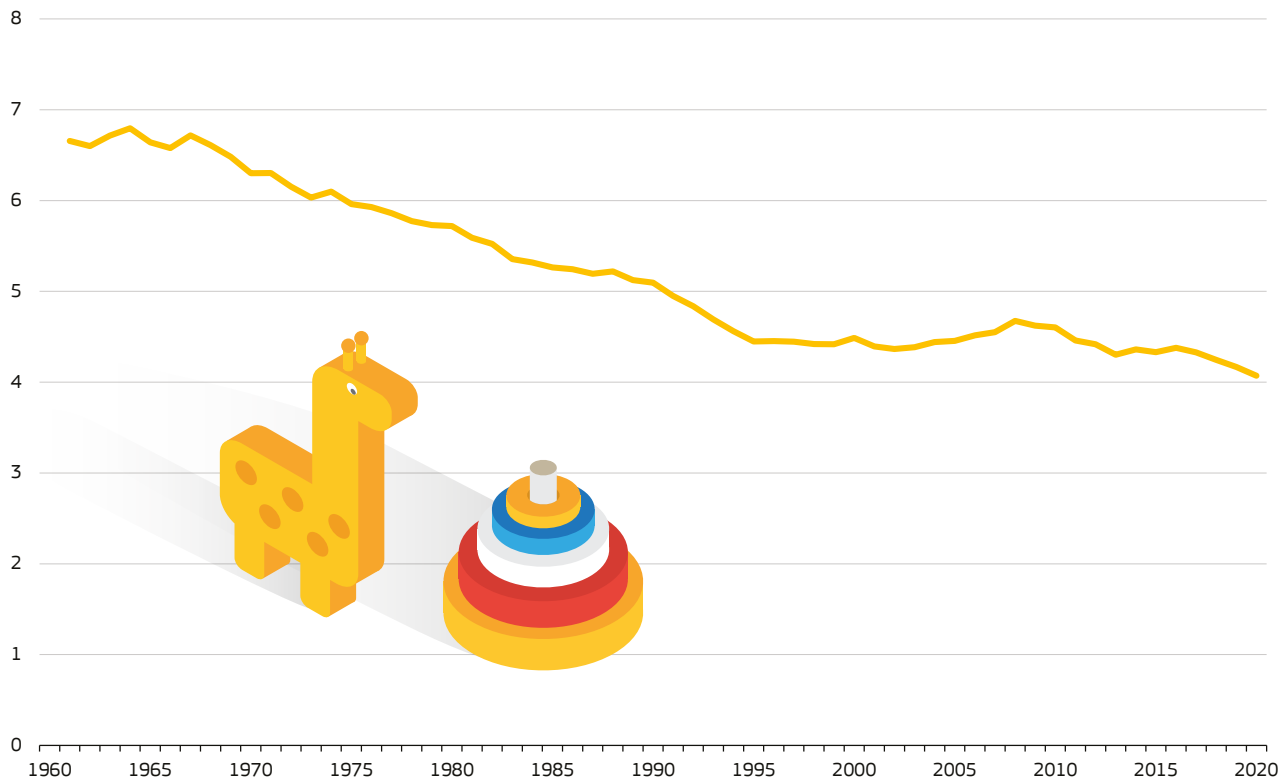
Following the sudden drop during the pandemic, however, the long-term trend of gradual increase in life expectancy has resumed. In November 2021, most countries were close to the life-expectancy figures recorded before the pandemic, or even slightly above. ⁽³⁾ In 2021, life expectancy in the EU was estimated at 82.8 years for women and 77.2 years for men ⁽⁴⁾.

In the long run, the increase in the number of days with unusually high temperatures and heat waves may start to have long-lasting consequences on mortality. Research suggests that around 70 000 deaths could be attributed to the extreme temperatures of the heat waves of July and August 2003, which affected many parts of Europe ⁽⁵⁾ Around 3 000 deaths in France were attributed to the heat waves in 2015. In addition to these specific episodes in recent years, analysis of weekly death counts by age across the EU for 2015–2022 shows that the increases in mortality during summer months since 2018 are starting to become significant ⁽⁶⁾. These increases in mortality during summer represent an additional systematic seasonal component of elderly mortality at the same level of significance as the winter peaks associated with influenza.

Graph 1: Life expectancy at birth in the EU, 2002-2021



Graph 2: Live births in the EU (in million), 1960-2020



Note: Excluding French overseas departments before 1998. Including Mayotte from 2014.

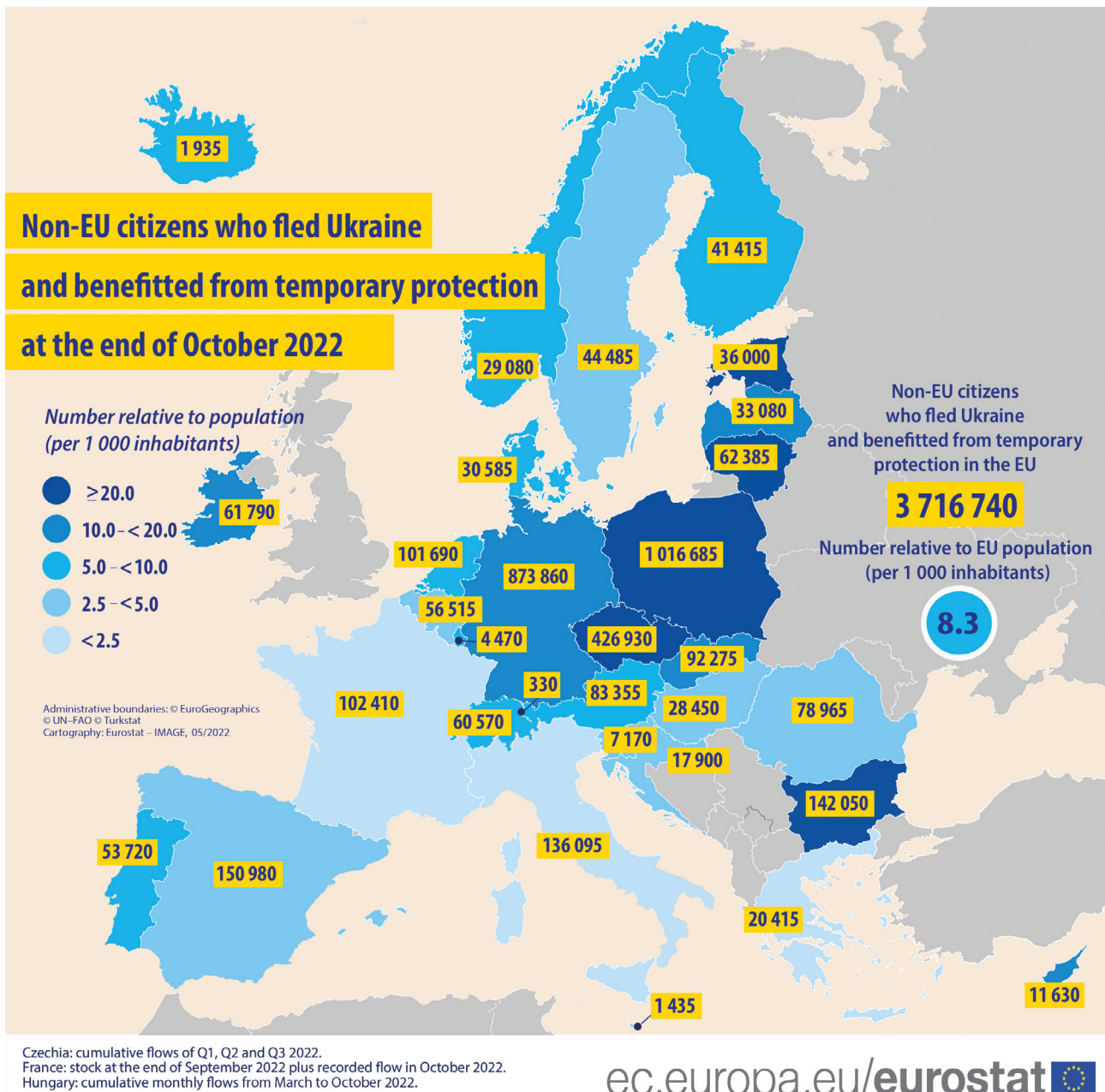
Source: Eurostat (online data code: demo_gind).

Although the COVID-19 pandemic caused a temporary decline in births, the number had already recovered significantly by the second half of 2021. Birth rates in Europe have declined steadily since the 1960s (see Graph 2), as a result of multi-faceted, gendered, social and economic developments. Although the birth rate recovered somewhat in the 2000s and stabilised in the following decade, the level of births declined further during the pandemic, most likely because of the uncertainty about how the pandemic would develop and what its impact would

be on the economy. However, by the second half of 2021, the number of births per woman had already recovered to almost pre-pandemic levels. Nonetheless, in 2020 the average number of childbirths per woman was 1.5, which is well below the value of 2.1 required to maintain a stable population in the absence of migration (7).

The succession of the COVID-19 pandemic, Brexit, and the Russian war of aggression against Ukraine in the span of less than 3 years has also had profound

Graph 3: Non EU-citizens having fled Ukraine and who benefitted from temporary protection (October 2022)



consequences on movements of persons into the EU. Some of these changes might be temporary, while others will have more lasting effects on populations at both the national and regional levels.

The COVID-19 pandemic led to a large drop in migration flows, although this trend has been reversed since. In 2020, about 1.9 million people migrated to the EU from a country outside the EU, while about 956 000 people emigrated from the EU to a country outside the EU. In 2019 there were, respectively, an estimated 2.7 million immigrants to the EU from non-EU countries and about 1.2 million people emigrated from the EU to a country outside the EU ⁽⁸⁾.

Compared with the previous year, this was a drop in incoming migration flows of almost 30 % in 2020, probably influenced by the lockdown restrictions and their impact on the economy during the COVID-19 pandemic.

The pandemic has had a visible negative impact on the number of first residence permits issued in the EU to non-EU citizens in 2020. The total number of first residence permits issued by national authorities in the EU dropped from close to 3 million to less than 2.3 million between 2019 and 2020. Education-related first residence permits as a share of all residence permits issued in the EU fell from 13 % in 2019 to 11 % in 2020 ⁽⁹⁾.



The total number of first residence permits issued in the EU to non-EU citizens has since recovered.

In 2021, 2 952 300 first residence permits were issued in the EU to non-EU citizens. The number increased by 31 % (or +693 700) compared with 2020, reaching almost the pre-pandemic level observed in 2019 (2 955 300). In 2021, there was a particularly large increase in the issuance of employment-related permits, the share of which grew from 39 % of all residence permits in 2020 to 45 % in 2021 ⁽¹⁰⁾. This was equivalent to 1.3 million permits, the highest figure since 2009, with Poland, Spain, Italy and Czechia issuing most permits in the EU for employment purposes. As of January 2021, non-EU nationals make up 5 % of the EU population (23.7 million persons in total).

As expected, the UK's withdrawal from the EU led to an increase in the number of EU citizens leaving the UK to return to their home countries, especially in Central and Eastern European countries. Based on data from 13 EU Member States ⁽¹¹⁾, in 2020 there was an almost 50 % increase in European citizens leaving the UK compared with 2015, the year before the referendum on Brexit. This UK-specific flow of return migration had been increasing since 2017 with a further rise in 2020.

It is estimated that around 40 % of all migratory movements within the EU (in 2015-2020) were made by EU-mobile workers heading home ⁽¹²⁾. In some Member States, there was a noticeable increase in the share of returning citizens compared with emigrations between 2019 and 2020. For example, compared with 2019, six times as many Bulgarians returned to their home country in 2020 as left the country ⁽¹³⁾.

These 'reverse' migration flows in the context of the COVID-19 pandemic and Brexit highlight both the key role of migrants in EU economies and the temporary nature of migration. Migrants returning to their home country tend to be younger, better educated and earning

more compared with both native citizens who never migrated to another country and migrants who do not return to their country of origin. Short-term and circular migration can be a triple win as it enables destination countries to fill labour shortages, migrants to earn higher income and upgrade their skills, and the countries of origin to benefit from the new skills acquired by the returning migrants. However, with the currently available data, it is not yet possible to conclude whether the inversion of migratory movements recorded during the COVID-19 pandemic represents a long-term shift in EU migration patterns.

The Russian war of aggression against Ukraine has forced many people living in Ukraine to leave their country. As of the end of December 2022, almost 4 million registrations for Temporary Protection (see Graph 3), mostly women and children, were recorded across the EU ⁽¹⁴⁾. Although many people previously living in Ukraine have meanwhile returned or intend to go back once the security situation allows it, some are expected to stay.

The war in Ukraine and the large flow of refugees may also have significant consequences for the demography of Ukraine. Already before the war, the population of Ukraine had been declining for three decades, going from 51.7 million in 1993 to 43.5 million in 2021 mainly due to fewer births and emigration. This decline can be expected to be accelerated by the shock of the war due to war casualties and the large-scale population outflow in 2022. Ukraine could lose a substantial share of its population by 2050 in the case of a long war with continued international displacement from the war and low future return migration. Even in the best-case scenario of Ukraine recovering quickly from the war and becoming a country with net annual inflows of people, the population is still likely to drop significantly by 2050. Despite the large uncertainties linked to the evolving geopolitical situation and the major difficulties of projecting migration rates, these scenarios show how migration will be a major driver of demographic change in Ukraine in addition to future trends in births and mortality. Immigration and emigration patterns and the migration policies that will be established with the EU will strongly influence Ukraine's demographic future and subsequently also the recovery and longer-term trajectory of the country's economy.



3

The impact of demographic change

3.1. Population decline

The EU's population has grown consistently for more than 50 years. It increased by 92.3 million people from 354.5 million in 1960 (counting the 27 current Member States) to 446.8 million on 1 January 2022.

However, population growth has slowed down in recent decades and halted during the COVID-19 pandemic (see Graph 4). This happened due to a combination of fewer births, more deaths, and lower net migration ⁽¹⁵⁾, as outlined above. In other words, migration did not compensate, as it did in previous years, for the decrease in the population due to fewer births and more deaths. The EU's population is now projected to continue to grow, but at a limited pace, until 2029, after which it will start to slowly decline ⁽¹⁶⁾.

However, a number of EU Member States are projected to experience a decline in their population already in the next years. For example, until 2030, this phenomenon is likely to affect Bulgaria, Greece, Croatia, Italy, Latvia, Lithuania, Hungary, Poland and Romania. Other countries are, on the contrary, projected to see population growth over the same period. These include Denmark, Ireland, Cyprus, Luxembourg, Malta and Sweden.

Population decline also varies significantly between regions within countries. In 2020, 199 regions (out of 1 166 regions) in the EU had a shrinking population ⁽¹⁷⁾. In 2019, rural regions were losing more population due to natural change, and they were gaining fewer people through migration compared with predominantly urban regions ⁽¹⁸⁾.

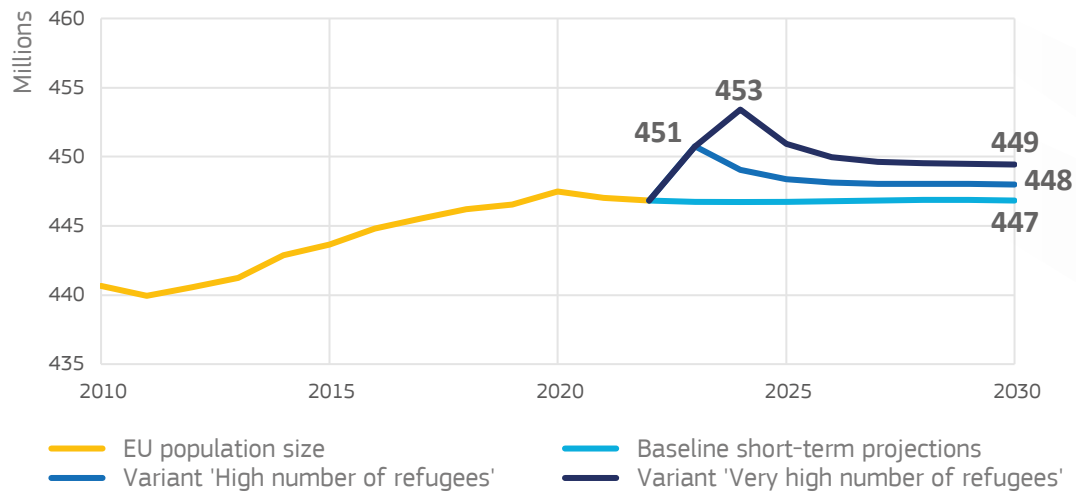
The population in rural areas of Europe is already older, on average, than the population in towns, cities and suburbs. Certain regions of Eastern and Southern Member States are even confronted with both challenges: natural declines in population combined with net movement away from rural regions ⁽¹⁹⁾. Moreover, young women are more likely to leave rural regions than young men. These demographic trends are coupled with a lack of connectivity, poor infrastructure, productivity challenges, and low access to public services including education and care, and indicative of the lower attractiveness of rural areas as places to live and work.

The mobility of young people can result in major changes to demographic structures in particular geographic areas ⁽²⁰⁾. Some regions thrive as younger and more qualified generations move in, whereas others lag behind. These developments can lead to considerable differences in demographic structures. They often result in predominantly urban areas having relatively younger populations, buoyant labour markets, and increased influx of migrants. On the other hand, some towns and cities in former industrial heartlands are left behind economically, characterised by high levels of unemployment, poverty and social exclusion. Such developments can have major impacts on the urban environment in the growing areas through increased demand for energy, housing and mobility and changes in land use which will require cities to adapt their planning and urban design approaches.

The EU's share of the global population has declined considerably and is projected to continue falling in future decades (see Graph 5). On 15 November 2022, the

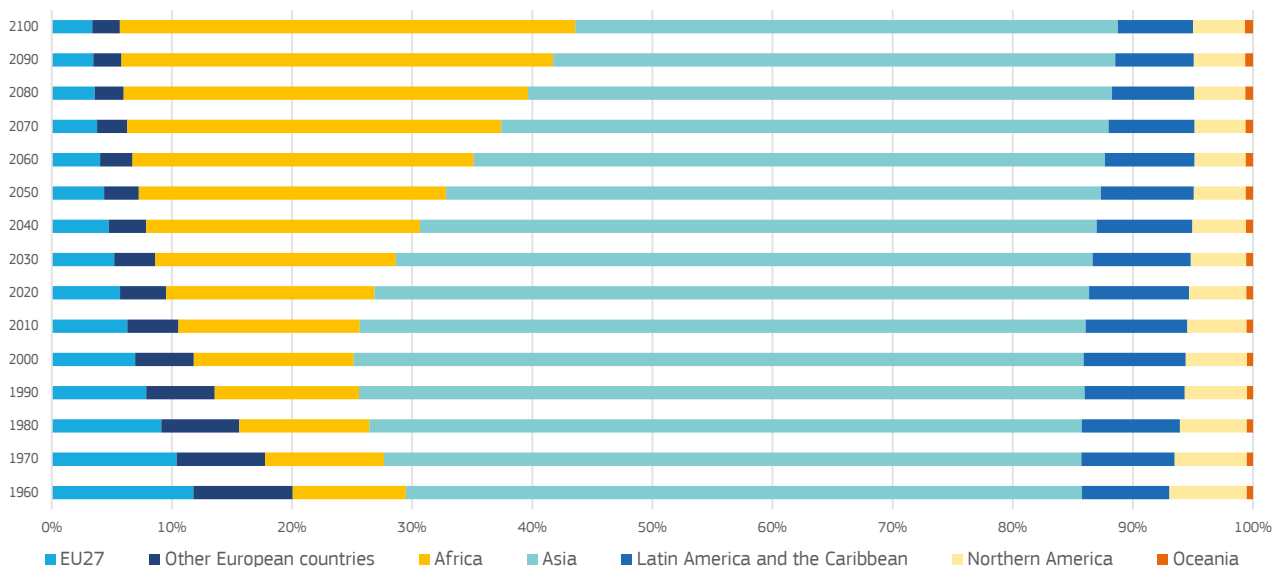


Graph 4: Observed and projected EU population size, 2010-2030



Source: Eurostat (online data codes: demo_gind and proj_stp2022).

Graph 5: Estimated and projected mid-year population size by continent, 1960-2100 (in%)



world's population reached a projected 8 billion people ⁽²¹⁾. At the same time, according to the latest UN World Population Prospects ⁽²²⁾, the share of the world's population living in the 27 countries that now constitute the EU decreased from 12 % in 1960 to 6 % today and is expected to fall to below 4 % by 2070. Conversely, there has been a remarkable increase in Africa's share of the world's population, which rose from 9 % in 1960 to 17 % today and will rise to a projected 38 % by 2100. Asia, which had the highest share of the world's population in 1960 and has today more than half of the world's population, is expected to decrease to 45 % by 2100. Oceania, North America, Latin America and the Caribbean do not show major projected changes over time in their shares of the world's population.



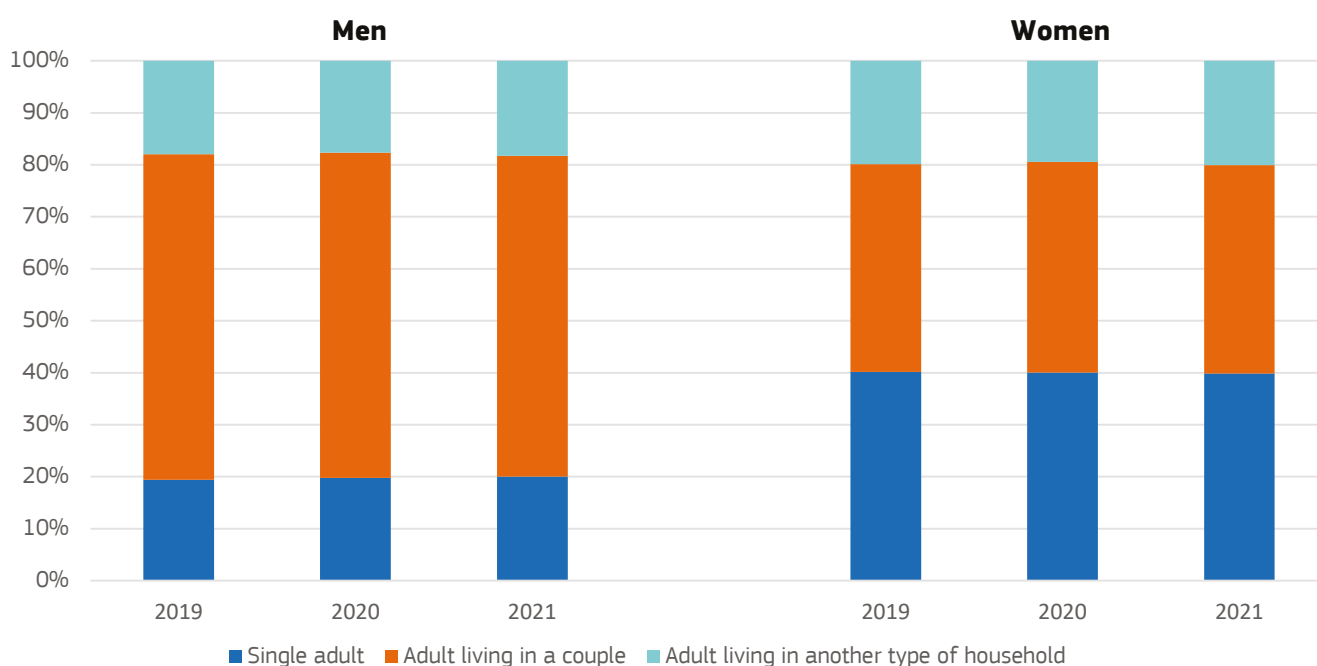
3.2. Population ageing

Ageing of the population is a long-term trend, which began several decades ago in Europe. It can be seen in an increasing share of older people, coupled with a declining share of working-age people in the total population.

On 1 January 2021, people aged 65 and above represented 20.8% of the EU population. This represents an increase of 0.2 percentage points compared with 2020 (20.6 %), and an increase of 0.6 percentage points compared with 2019 (20.2 %). Compared with a decade earlier, the share of older people went up by 3 percentage points (from 17.8 % in 2011) ⁽²³⁾. In 2021, there were just slightly more than three Europeans of working age for every European aged 65 or over, representing an old age dependency ratio ⁽²⁴⁾ of 32.5 %. By 2050, about 30% of the European population will be over 65, and it is expected that there will be fewer than two working age adults for each elderly person (Old age dependency ratio projected to be 56.7 %), confirming an increasing trend of old-age dependency in the future.

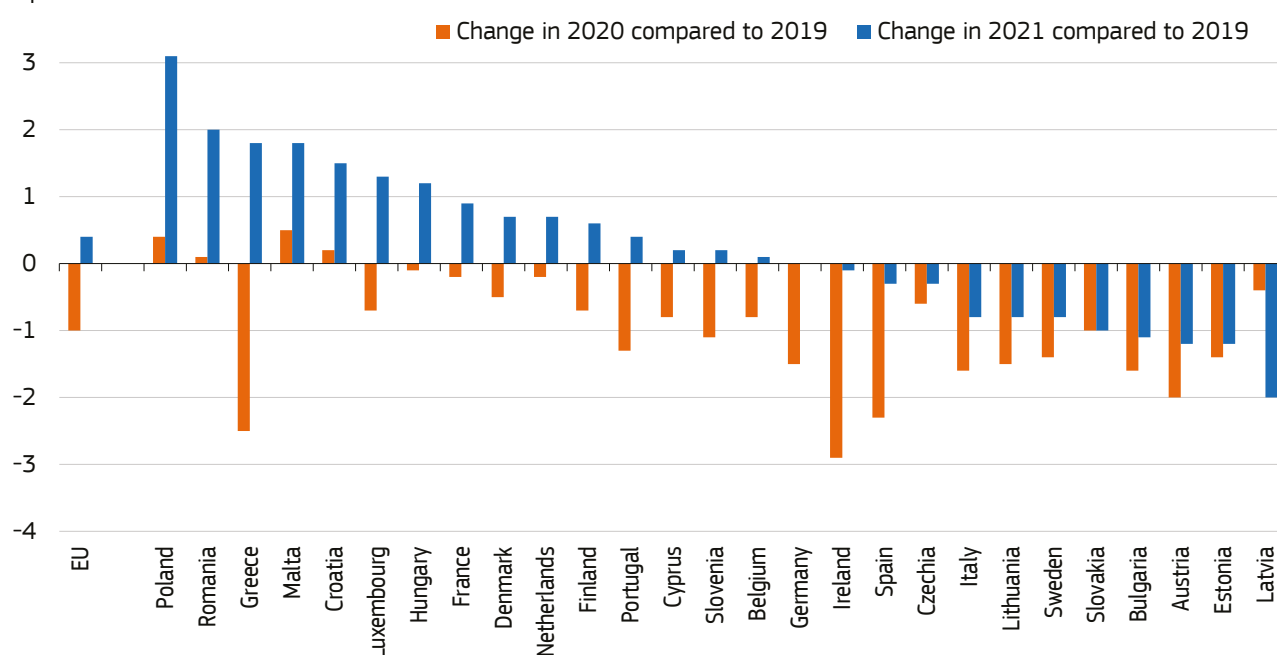
At the same time, the share of young people in the EU is decreasing. In the 15-29-year-old age range, the share decreased from 18.1 % in 2011, to 16.6 % in 2019, and to 16.3 % in 2021 ⁽²⁵⁾. This trend of a decreasing share of young people is expected to continue and to become even more pronounced in rural regions ⁽²⁶⁾.

Graph 6: Share of men and women aged 65 and over by household type, EU, 2019-2021



Source: Eurostat (online data code: lfst_hhindws). Break in the data series in 2021 due to the implementation of Regulation (EU) 2019/1700.

**Graph 7: Change in employment rate in 2020 and in 2021 compared with 2019
(in percentage points, people aged 20-64)**



Note: 2020 German data should be treated with caution as technical issues and the COVID-19 crisis had a large impact on data collection.

Source: Eurostat (online data code: lfsi_emp_a).

An ageing population exacerbates fiscal sustainability challenges. An older population has greater needs for health care and long-term care and will require additional infrastructure investments and adaptations to ensure accessibility to all. ⁽²⁷⁾ It makes it also more challenging to sustain adequate pensions. This is particularly relevant for women which, due to their longer life expectancy, often need more long-term care, while their pensions were on average 26.9% lower than men's in 2021. In the baseline scenario underpinning the 2021 Ageing Report, the total cost of ageing which stood at 24% of GDP in 2019, is projected to rise by 1.9 pps of GDP by 2070. ⁽²⁸⁾

The lack of replacement of middle-aged workers having higher labour productivity may also create imbalances in the intergenerational transfers in the economy, which may pose limits to economic growth both at national and regional level ⁽²⁹⁾. Hence, the need for ambitious active-ageing-policies at all levels and involving all relevant actors. Complementing the required reforms in the area of employment and social security policies, businesses and workers need to work together to adapt work practices and working environments and to change preconceived notions and stereotypes about generations to facilitate longer working lives. Over the past 10 years, good progress has been made in this area with the average employment rate of workers between 55 and 64 years of age increasing from 45% in 2011 to 60.5% in 2021. Disparities between Member States in this area remain considerable however, indicating that there is still room for improvement. ⁽³⁰⁾

However, an increasing share of older people also initiate positive economic dynamics. Whereas younger people tend to move to major economic hubs in search of education, training and job opportunities, retired migrants often move in the opposite direction. Due to their increased mobility, retired people who are still active might come to populate tourist regions and thereby contribute to economic growth in these regions. The towns and regions that attract pensioners, for example in the south of Spain, have been able to tap into the so-called 'silver economy'. Apart from being profitable for businesses, this can promote positive and socially inclusive ageing in Europe.

3.3. Household composition

The number of households in Europe has continued to grow, while the average household size continues to fall. In 2021, the average European household consisted of 2.2 people, compared with 2.3 in 2019 and 2.4 in 2009 ⁽³¹⁾. This confirms the slow downward trend observed over the previous decade.

More than a third of all households in Europe today consist of one adult person, with or without children. Households composed by a single person, aged 18 or over, without children, have grown the fastest over the past decade, with 4.3% between 2019 (67.5 million) and 2021 to reach over 70 million households (70.4 million) in 2021. A growing number of these households consist of people



aged 65 or over, living in a single adult household (these households have increased by 5.2 % from 27.1 million in 2019 to 28.5 million in 2021) ⁽³²⁾.

As Europe gets older, a growing number of people aged 65 or over are living alone. In 2021, 18.9 % of all men aged 18 years or over lived alone compared with 23.6 % of women of the same age group. This difference is almost exclusively due to the gender imbalance in the population over the age of 65 (39.8 % of women over the age of 65 live alone compared with 20 % of men) because of the difference in life expectancy between men and women (see Graph 6).

By contrast, households composed of a couple with or without children are becoming scarcer. Their share declined by 1.7 % in 2021 compared with 2019 (from 80.1 million to 78.7 million) ⁽³³⁾. These developments have implications for both access to housing or essential services and demand for energy and transport.

The COVID-19 pandemic only had a temporary effect on the labour market. During the pandemic, the employment rate decreased by 1 % in 2020 compared with 2019 (see Graph 7). However, one year later, the 2021 employment rate had reached or even exceeded the pre-pandemic level in the EU ⁽³⁷⁾. In 2021, the overall employment rate of people in the EU aged 20-64 was 73.1 %.

Nevertheless, the EU's working-age population ⁽³⁸⁾ is decreasing. Over the last decade, the EU's working-age population dropped from 269 million in 2012 to 264 million in 2021. While the phenomenon is widespread, it is particularly pronounced in certain Member States (such as Latvia, Bulgaria and Romania) which are affected by migration outflows in addition to low birth rates.

Working from home has become more common in recent years. The share of employed people working from home in the EU jumped from 1 in 7 people in 2019, to 1 in 5 in 2020 ⁽³⁹⁾. In 2021, almost every fourth person

3.4. Trends on the labour market

The demographic composition of the EU labour market has not changed radically in the past few years. The latest data confirm that although more women are participating in the labour market, the gender employment gap remains at 10.8 percentage points in 2021 (with 67.7 % of women and 78.5 % of men being employed) ⁽³⁴⁾. The unemployment rate for persons aged 15 to 29 also remains worryingly high, at 13 % in 2021 for the total, for men and for women in the EU ⁽³⁵⁾. In addition, only 50.6 % of people with disabilities in the EU are employed, which means the disability employment gap remains at 22.5 percentage points (with 73.1 % of people without a disability being employed) and 56 % of young Roma (aged 16-24) are not in education, employment or training (compared to an EU average of 11 %) ⁽³⁶⁾.



was working from home. The COVID-19 pandemic certainly influenced this development but there is no sign that these numbers are reversing. This transformation has far-reaching consequences on the labour market, on working conditions, inclusion of persons with disabilities on the labour market, and on where people choose to live.

The digital transition and the possibility to work from home has the potential to enable people to join the labour market remotely. Remote or hybrid working could be an advantage to persons with health issues and less mobile persons in general, as well as workers with care responsibilities. Such a shift would require better deployment of broadband networks in all European regions, as well as boosting digital literacy and accessibility and inclusiveness of digital tools. In addition, better provision of e-services – and eHealth in particular – could improve the quality of life of people in rural and remote regions. In particular, the provision of integrated and long-term care remotely, with the help of digital technologies, could lead to a significant improvement in the physical and mental health and wellbeing of people.

Overall, the COVID-19 pandemic may have encouraged more people to move from predominantly urban to rural areas due to the widespread possibility of working from home. For the greatest part of the twentieth century, population change in most European countries followed a pattern of urbanisation, with people moving from rural areas to cities. In recent years, several countries have also experienced ‘counter-urbanisation’ as more people move to rural areas with good transport connections and social services. The pandemic may have accelerated this trend. This could have significant consequences on transport and commuting systems, housing prices, and the provision of services in rural areas, leading to changing population structures in more remote areas with environmental and resource-use impacts. The effect of the COVID-19 pandemic

on counter-urbanisation has been apparent in Austria, Italy and Spain, albeit at slightly different paces ⁽⁴⁰⁾. It remains to be seen whether this trend of counter-urbanisation will continue.

3.5. Poverty and social exclusion risks

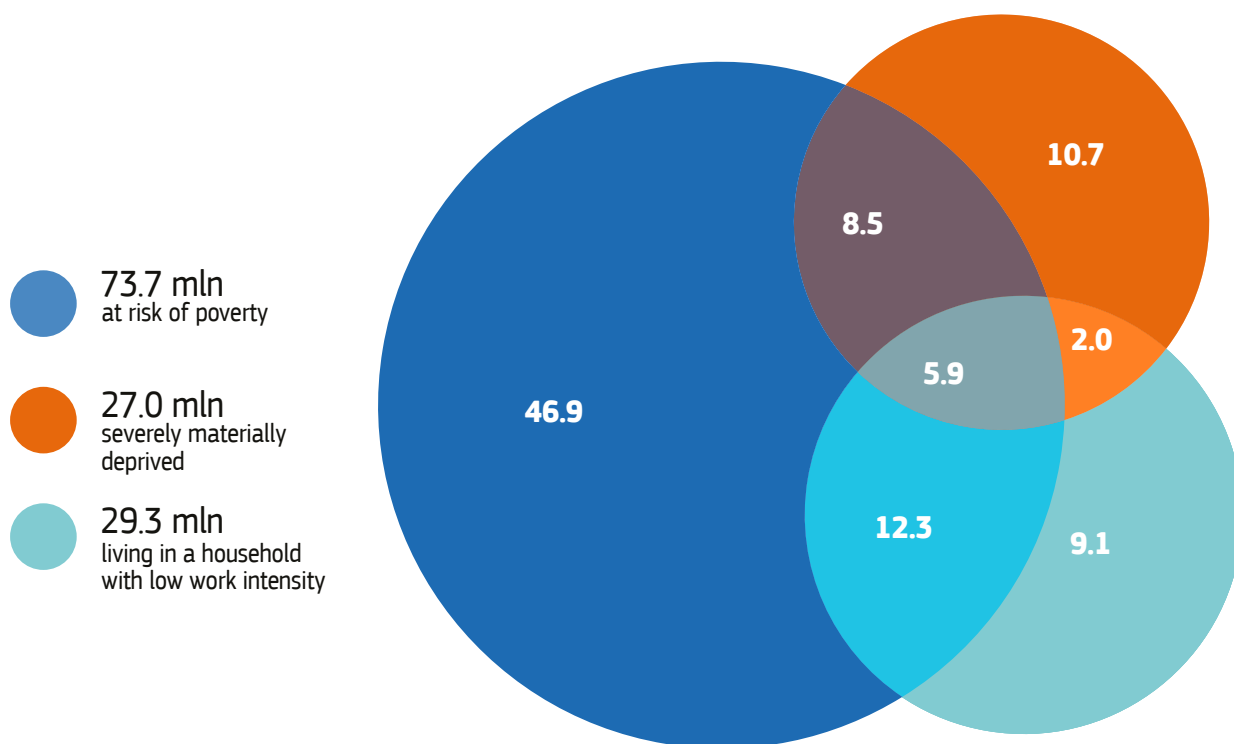
Despite the COVID-19 crisis, the share of people at risk of poverty or social exclusion stabilised throughout 2020 and 2021 thanks to the mitigating measures deployed by the EU and Member States. In 2021, 95.4 million people (21.7 % of the population) were at risk of poverty or social exclusion ⁽⁴¹⁾ (see Graph 9) compared to 94.7 million (21.6 % of the population) in 2020. The risk remains higher for women than for men (22.6 % compared to 20.7 %) and some specific population groups, such as people with disabilities (almost 30 %) or Roma ⁽⁴²⁾ are disproportionately affected.

In 2021, 6.9 % of people in the EU were living in a household that was unable to keep its home adequately warm (see Graph 10). This represents an overall decrease of 0.6 percentage points compared with 7.5 % of people in the EU in 2020. However, as gas and electricity prices increased in 2022, the situation is likely to have worsened considerably since then.

In the future, inflation and increasing energy prices are likely to further challenge households’ capacity to heat their homes and push more people into being at risk of poverty or social exclusion. Hence the importance of the initiatives taken, in the context of the REPowerEU Package, to tackle rising energy prices, mitigate the energy market volatility, diversify energy supplies and reduce energy demand ⁽⁴³⁾.



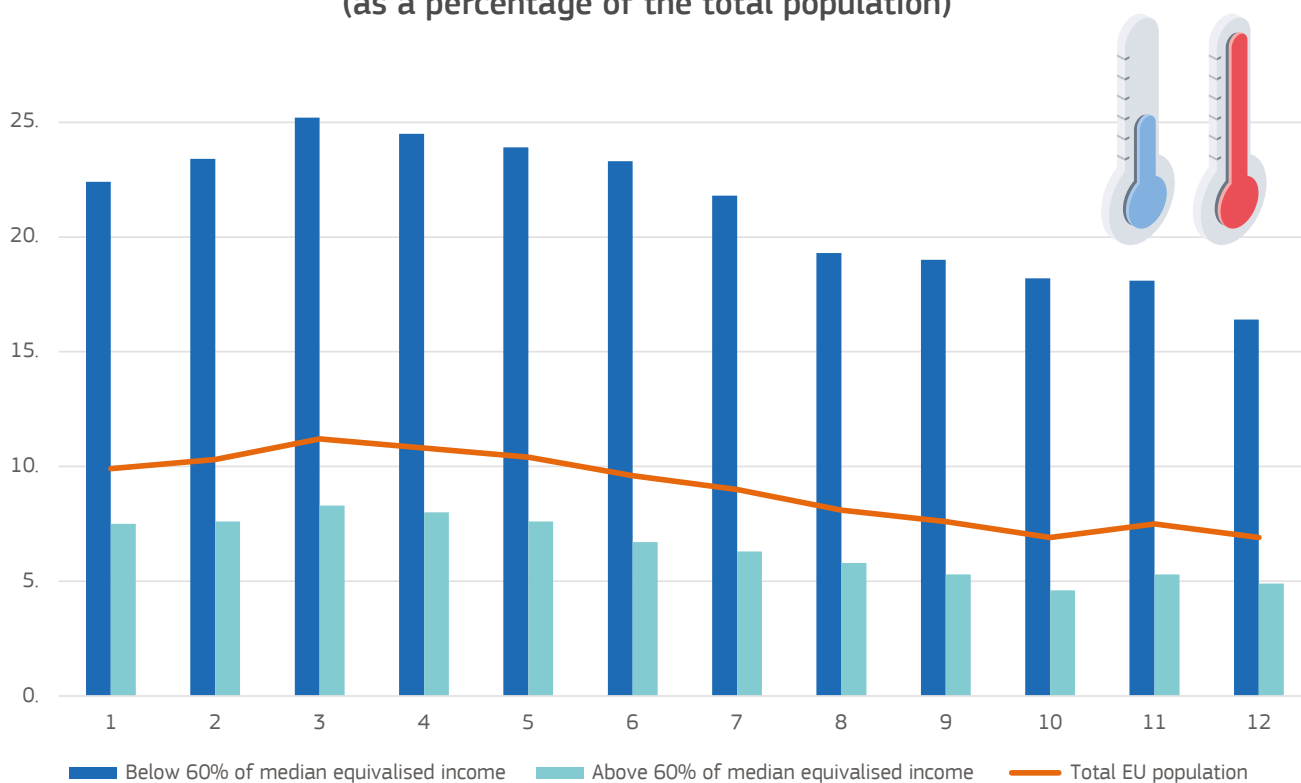
Graph 8: Number of people at risk of poverty or social exclusion in the EU in 2021



Note: estimates.

Due to rounding, the sum of the data for the seven intersecting groups may differ slightly from the totals published elsewhere.

Graph 9: Inability to keep home adequately warm, EU 2010-2021
(as a percentage of the total population)



Source: Eurostat (online data code: ilc_mdcs01). ARPT: At-risk-of-poverty threshold.



4

Conclusions: getting ready for the future

While Brexit, the COVID-19 pandemic, and the war in Ukraine have had a clear impact on established demographic trends, it seems that at least some long-term demographic trends are re-establishing themselves.

For example, by 2021, the number of births had risen almost back to pre-pandemic levels, and at least some Member States saw their average life expectancy rebound towards pre-COVID-19 levels. It remains to be seen whether the impact of recent crises on migration flows will prove durable.

Demographic divergences can worsen economic, regional and social divides. Some, predominantly rural and less developed, EU regions are experiencing an accelerated reduction of their working age population and lag behind in developing, attracting and/or retaining the right talent needed for their development. This combination of challenges may impede their capacity to build sustainable, competitive and knowledge-based economies, and puts them at a higher risk of failing to catch up with more advanced regions. The *Communication on Harnessing talent in Europe's regions*, adopted by the Commission today, sets out the drivers and consequences of these regional disparities. The Communication also outlines targeted solutions to attract or retain talent in rural areas with a view to transform shrinking regions into more dynamic talent-driven locations and to help stimulate urban-rural linkages. Integrated development policies, promoted by cohesion policy and EU funds are crucial to help these regions improve both their business environment and quality of life and become more attractive places to live and work. They spur demand

for talent, by multiplying and diversifying employment and business opportunities and increase the supply of talent by creating more education and training opportunities for all.

To ensure future prosperity and wellbeing in the EU, it is crucial to address the challenges brought about by the demographic transition. These challenges include an ageing population, a shrinking working-age population and population decline more generally, as well as increasing regional disparities, including a growing urban-rural divide. In a longer-term perspective, global warming and environmental deterioration, such as extreme weather events, could have a sizeable impact on demographic change, contributing to rising mortality and chronic illnesses and inducing migratory movements, both within the EU and between the EU and third countries. The growing share of older people in the EU will result in an increased need for care services and will also challenge the long-term financial sustainability of our welfare states. To help Member States address these issues, the European Pillar of Social Rights is an important guiding framework under which the Commission recently adopted the *European Care Strategy*, which included the proposal for a *Recommendation on access to affordable, high-quality long-term care* adopted by the Council last December

The on-going demographic transition also creates opportunities for both individuals and society as a whole. As people live longer and healthier lives, they enjoy more possibilities for personal and professional development. As businesses and employment practices adapt



to a shrinking workforce, underrepresented groups may get more opportunities to put their talent to use in the labour market. An ageing population can initiate positive economic dynamics in certain regions and industries also brings business opportunities in the ‘silver economy’, a sector which can help to improve the quality of life of older people by providing innovative services, including digital services.

The shrinking working-age population underlines the need for activating the available talent and continued investment in skills across all generations. As skills shortages become more prevalent, additional efforts will be needed to activate more people for the labour market. This applies in particular to women, people with disabilities, older people and young people not in education, employment or training. In this context, active labour market policies in line with *Youth Employment Support Package* ⁽⁴⁴⁾, the *Commission Recommendation on Effective active support to employment* ⁽⁴⁵⁾, the *Council Recommendation*

on ensuring a fair transition to climate neutrality ⁽⁴⁶⁾ and the *Disability Employment Package* ⁽⁴⁷⁾ will be key to enhance labour market integration and facilitate job-to-job transitions to ensure that the potential of the working age population is best used. The Commission proposal to make 2023 the *European Year of Skills* also aims to contribute by promoting increased and more effective investment in reskilling and upskilling, improving skills relevance and attracting helping to attract talent in shortage occupations from around the world.

This follow-up Report confirms the horizontal nature of the demographic transition. Demography underpins virtually all policies and requires that policymakers, on all levels, engage in complex coordination due to the variety of actors that need to be informed and involved. However, it is precisely this multi-dimensionality of demography that presents an opportunity to be grasped, for the EU to be at the forefront as actor and innovator in this field.

End notes

- 1 Source: Eurostat (online data code: DEMO_FIND)
- 2 Generally speaking, COVID-19 was a prominent, but not leading, cause of death in 2020. Based on available data from 15 Member States, COVID-19 was the third ranked cause of death in 2020, representing 7.9% of all deaths, after cardiovascular diseases (35.0%) and cancer (23.4%), but ahead of diseases of the respiratory system (6.3%). COVID-19 proved fatal mostly for older people, and more men than women died. Children were mostly spared, with 26 deaths in total in the 15 Member States studied. For more information, see the Eurostat 'Statistics Explained' articles on [weekly death statistics](#) and on [excess mortality](#).
- 3 Except for Bulgaria, Romania, Slovenia and the Baltics, all of which experienced higher peaks in excess mortality later
- 4 Provisional estimates of the sex-specific life expectancy at birth for the EU obtained without data from Germany and Ireland (unavailable).
- 5 Robine, J. M., Cheung, S. L. K., Le Roy, S., Van Oyen, H., Griffiths, C., Michel, J. P., & Herrmann, F. R., 'Death toll exceeded 70,000 in Europe during the summer of 2003', Volume 331, Issue 2, 2008, pp. 171-178.
- 6 In July 2022, several countries, notably Spain, Italy, Germany and France, recorded unusually high numbers of excess deaths compared with the same month in 2020 and 2021. This was probably connected not only to COVID-19 but also to the heatwaves that affected parts of Europe in the summer of 2022. Spain had 12 000 additional deaths in July 2022, 2 500 in July 2021 and 2 100 in July 2020, compared to with an average of 33 000 deaths for the months of July between 2016 and -2019.; Italy had 14 500 additional deaths in July 2022, 3 600 in July 2021 and 1 500 in July 2020 compared to with an average of 50 000 deaths for the month of in July between 2016 and -2019.; Germany had 11 900 additional deaths in July 2022 and 2 600 additional deaths in July 2021, and but 300 deaths below the baseline in July 2020, compared with 74 000 deaths on average in for the month of July between 2016- and 2019.; France had 7 100 additional deaths in July 2022, 1 300 additional deaths in July 2021 and 300 deaths below the baseline in July 2020 compared to with an average number of 47 000 deaths in for the month of July between July 2016 and -2019. For more information, see the Eurostat 'Statistics Explained' articles on [weekly death statistics](#) and on [excess mortality](#).
- 7 For more information, see the Eurostat 'Statistics Explained' article on [fertility statistics](#).
- 8 For more information, see the Eurostat 'Statistical Explained' article on [migration and migrant population statistics](#).
- 9 For more information, see the Eurostat 'Statistics Explained' article on [first residence permits](#).
- 10 Besides the increase in the number of residence permits issued for employment-related reasons, the other main reasons recorded also an increase in 2021 compared with 2020: 42% for education-related reasons (+105 000), 14% for family reasons (+88 600) and 15% for other reasons, including international protection (+71 000).
- 11 This information was collected as part of a special data request of Eurostat to member states to which 13 member states provided data. These countries are Belgium, Bulgaria, Czechia, Estonia, Spain, France, Croatia, Italy, Lithuania, Hungary, Austria, Slovakia, and Sweden. They represent 41% of return migration to all the EU Member States during the years 2015-2020. Source: Eurostat (online data code: migr_immctzprv and migr_emicznxt).
- 12 JRC estimate based on stock data from UNDESA using demographic accounting methods in Azose, J. J., & Raftery, A. E., 'Estimation of emigration, return migration, and transit migration between all pairs of countries', *Proceedings of the National Academy of Sciences*, Vol. 116, No 1, 2019, pp. 116-122.
- 13 For more information, see the Eurostat databases: migr_imm3ctb and migr_emi4ctb.
- 14 At the end of October 2022, the main countries hosting people fleeing Ukraine were Poland and Germany. The highest numbers of people fleeing Ukraine relative to population were observed in Czechia (39.9 per 1 000 inhabitants), Estonia (27.1) and Poland (26.9). Among adults, a large majority of people fleeing Ukraine were women (76%) while men represented 24%. The proportion for boys and girls of less than 18 years old was similar. At the end of October 2022, most decisions granting temporary protection were recorded in Germany (1.02 million) and Poland (873 860) For more information, see the Eurostat 'Statistics Explained' article on [temporary protection for persons fleeing Ukraine](#)
- 15 For more information, see the Eurostat 'Statistics Explained' article on [population and population change statistics](#)
- 16 Source: Eurostat (online data code: proj_stp22). For more information, see also Eurostat 'Statistics Explained' article on [Population projections in the EU](#).
- 17 A region is considered as depopulating when the average of the annual population change rate over the last five years is not higher than -7.5 per 1 000 residents.
- 18 European Commission, SWD (2021) 166 final, 'A long-term Vision for the EU's Rural Areas – Towards stronger, connected, resilient and prosperous rural areas by 2040'.
- 19 Based on average annual rates of change between 2014 and 2019.
- 20 Aurambout, J.P., Batista E Silva, F., Bosco, C., Conte, A., Ghio, D., Kalantaryan, S., Kompil, M., Perpiñá Castillo, C., Proietti, P., Scipioni, M., Sulis, P. and Tintori, G., 'The Demographic Landscape of EU Territories', Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-27238-0, doi:10.2760/49621, JRC123046.
- 21 European Commission (2022, November 15), '[The EU in the world of 8 billion people](#)', Knowledge Centre on Migration and Demography (KCMD) Data Portal.
- 22 For more information on the 2022 Revision of UN World Population Prospects, see: <https://population.un.org/wpp/>

- 23 For more information, see the Eurostat 'Statistics Explained' article on [Population structure and ageing](#)
- 24 Old-age dependency ratios in this document are calculated as the ratio of people aged 65 or older, to people aged 20-64.
- 25 Source: Eurostat (online data code: YTH_DEMO_O20).
- 26 For more information, see the Eurostat 'Statistics Explained' article on [population projections at regional level](#)
- 27 For more information, see the 'Eurostat Statistics Explained' article on [functional and activity limitations statistics](#)
- 28 These long-term projections take Eurostat's population projections for the period 2019 to 2070 as a starting point. They rely on agreed upon assumptions and methodologies common for all Member States to project a set of key macroeconomic variables covering the labour force (participation, employment and unemployment rates), labour productivity, and the interest rate. Budgetary projections were carried out for four government expenditure items directly influenced by the age composition of the population, namely pension, health care, long-term care and education. The cost of ageing is here defined as the sum of these four expenditure items. Updated budgetary projections will become available in 2024. For more information, see European Commission, *The 2021 Ageing Report. Economic & Budgetary Projections for the EU Member States (2019-2070)*, European Economy – Institutional Paper 148, May 2021.
- 29 Mason, A., Lee, R., & members of the NTA Network, 'Six Ways Population Change Will Affect the Global Economy', *Population and Development Review*, Vol. 48, No. 1, 2022, pp. 51–73.
- 30 In 2021, the employment rate of older workers (55 to 64) ranged from less than 50% in Romania, Luxembourg, Greece and Croatia to over 70% in the Netherlands, Estonia, Germany, Denmark and Sweden. Source: Eurostat (online data code: LFSI_EMP_A)
- 31 The largest decreases in household size were recorded in Estonia (from 2.4 in 2009 to 1.9 members in 2021), Latvia (from 2.6 to 2.1) and Malta (from 2.9 to 2.5). The largest average household size in 2021 was recorded in Slovakia (2.9 members), followed by Croatia (2.8 members) and Portugal (2.7 members), while the smallest households were recorded in Sweden, Finland and Estonia (each with 1.9 members). For more information, see the Eurostat 'Statistics Explained' article on [household composition statistics](#).
- 32 Source: Eurostat (online data code: LFST_HHINDWS).
- 33 Source: Eurostat (online data code: LFST_HHNHTYCH).
- 34 For more information, see the Eurostat 'Statistics Explained' article on [employment](#).
- 35 For more information, see the Eurostat 'Statistics Explained' article on [youth unemployment](#).
- 36 Comparability with the Eurostat NEET rate [edat_lfse_20] is restricted owing to different definitions and age bands. Taking 15-year-olds into account would give values a few percentage points lower. The Eurostat NEET rate is based on the International Labour Organization concept, which refers to having worked at least one hour in the past week. The Roma Survey 2021 and the Bulgaria and Slovakia surveys asked about self-declared main activity and work done in the past seven days. They also excluded participation in non-formal education or training. For more information, see European Agency for Fundamental Rights (2022) *Roma Survey 2021 – Main Results*, Vienna, 2022.
- 37 The largest increases in employment from 2019 to 2021 were recorded in Poland, Romania, Greece and Malta. By contrast, 11 Member States recorded a 2021 employment rate lower than in 2019. The largest declines compared with 2019 were reported by Latvia, Estonia, Austria, Bulgaria and Slovakia.
- 38 The working-age population is conventionally defined as covering those aged between 20 and 64, which is also the age bracket used in this Staff Working Document. As the population ages and more people aged 65 and over remain in employment, this conventional definition may change.
- 39 The figures refer to the share of employed respondents to the Eurostat Labour Force Survey aged 20-64 indicating that they worked sometimes or usually from home. See Statistics | Eurostat (europa.eu), online data code: LFSA_EHOMP.
- 40 JRC elaboration of data from Statistik Austria, ISTAT and INE. Municipalities are grouped based on travelling times to the closest large city. The values are expressed as a percentage change relative to the level of net migration in 2015.
- 41 For more information, see the Eurostat 'Statistics Explained' article on [living conditions in Europe — poverty and social exclusion](#).
- 42 See for example: European Union Agency for Fundamental Rights, '[Roma in 10 European Countries – Main results](#)', Publications Office of the European Union, Luxembourg, 2022.
- 43 For more information, see European Commission (n.d.), '[EU action to address the energy crisis](#)'.
- 44 European Commission (July 1, 2020), '[Commission launches Youth Employment Support: a bridge to jobs for the next generation](#)'
- 45 European Commission (March 4, 2021), '[Commission Recommendation for Effective Active Support to Employment \(EASE\)](#)'.
- 46 Council of the European Union (June 7, 2022), '[Council recommendation on ensuring a fair transition towards climate neutrality](#)'.
- 47 European Commission (n.d.), '[Disability Employment Package to improve labour market outcomes for persons with disabilities](#)'.

